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| 10/580,585      | 12/20/2006  | Laurent Dubedout     | 291613US6PCT        | 5553             |

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| EXAMINER |
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WILLIAMS, ROBERT H.

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3679

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11/26/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/580,585 | <b>Applicant(s)</b><br>DUBEDOUT ET AL. |  |
|                              | <b>Examiner</b><br>Robert Williams   | <b>Art Unit</b><br>3679                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

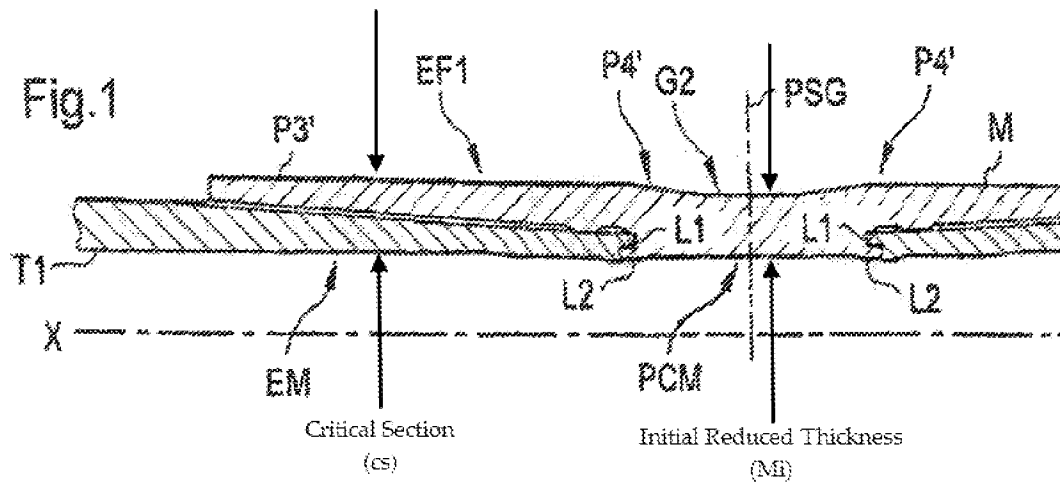
1. In the previous Office action, the claims were rejected under 35 USC 112 because "the specification does not provide a clear definition of 'the efficiency of the joint' ... it is not clear which section of the tube is used for calculating the efficiency of the joint (i.e., which section is referred to on line 15 of page 10?)." (Office action, paragraph 12). Where the tube (such as tubes T1 and/or T2 in Fig. 1) has varying thicknesses, there are multiple dimensions that could be considered "the section of the tube," as set forth in page 10, lines 14-16, of the specification. In response, applicant referred to known definitions of the efficiency of the joint in the art, with specific reference to the VAM Connection Data Sheet Manual (VAM sheet) attached to the response. In the definitions section of the VAM sheet, it is stated that "Critical Cross Section is for the minimum section of the connection ... and should be equal or superior to the Pipe Nominal Cross Section Area to achieve 100% tensile efficiency." (page 3/4). In other words, the VAM sheet establishes that it is understood in the art that the efficiency of the joint is determined with reference to the nominal pipe thickness, which would be the thickness of the common portion, as defined in the present specification. Therefore, "the product of the section of a common portion of said tubes and the efficiency of the joint" would always be equal to the critical section of the joint. (This is illustrated by the formulae below, where "e" is the efficiency

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of the joint, "cs" is the critical section, "cp" is the thickness of the common portion, and "Mi" is the initial reduced thickness of the sleeve.)

$$\begin{aligned}e &= cs / cp \\ Mi &\geq cp * e \\ \therefore Mi &\geq cs\end{aligned}$$

As a result, claim 1 requires that the annular zone has an initial reduced thickness selected such that the section of the sleeve in the region of this zone is greater than or equal to the critical section (i.e., the minimum thickness) of the threaded elements ( $Mi \geq cs$ ), as shown in the annotated Fig. 1, below, where it appears that the illustrated embodiment includes the initial reduced thickness being about equal to the critical section. Further, during a telephone conversation with Mr. Lee Stepina on 11/19/10, it was agreed that this limitation of claim 1 is intended to convey that the reduced thickness portion should not be thinner than the critical section of the threaded elements to avoid creating a weak point that would be subject to potential failure during the expansion.



***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-11, 15-17, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Application Publication WO 03/060370, Verger et al. (Verger), in view of U.S. Patent 3,870,351, Matsuki (Matsuki '351).

4. The Verger reference is a publication of application PCT/FR02/04546 and was published in French. However, U.S. Patent Application Publication

2005/0172472, Verger et al. (also referred to as Verger), which was published in English, is a publication of the U.S. national stage application based on application PCT/FR02/04546. Therefore, although U.S. 2005/0172472 is not applied as prior art, it will be referred to herein, where necessary, only as an English language translation of PCT Application Publication WO 03/060370.

5. Regarding claim 1, Verger discloses an assembly of two expandable threaded tubular joints, disposed symmetrically (paragraph 2, "Such a joint can exist between two tubes of considerable length, or between a tube of considerable length and a sleeve," where it is commonly understood that a sleeve typically includes two symmetrically disposed, identical joints, for example, that of Matsuki '351) and each comprising,

a first tubular element arranged at an end of a tube and comprising a first portion, provided with a male thread (paragraph 100, "a male threaded element 1 placed at the end of a first tube 11," Fig. 16), and a second portion extending said first portion (Fig. 16) and comprising:

i) a first outer surface (45),

ii) a first annular lip (13) having a first axial abutment surface (25)

and a first inner surface (Fig. 16) and delimited by said first outer surface over a portion of the axial length thereof, and

iii) a second abutment surface (Fig. 18), and

a second tubular element (paragraph 100, "a second tube 12") comprising:

- i) a female thread, matching the first male thread and screwed thereto ((paragraph 100, "a female threaded element 2 placed at the end of a second tube 12," Fig. 16; also, see paragraphs 70 and 72, "FIG. 14 represents a fourth phase of the screwing of the joint" and "FIG. 16 is a view similar to FIG. 14, relating to a variant," i.e., although the threads are not explicitly shown in Fig. 16, it appears from the translated description of the drawings that the embodiment of the invention relied on herein includes threads just as does the first disclosed embodiment of Verger),
- ii) a second annular lip, having a third abutment surface (Fig. 18), a second outer surface (18), configured to be arranged to face said first inner surface, and a second inner surface (Fig. 16), and wherein
- iii) a third inner surface (40) and a fourth axial abutment surface (24) defining with the second outer surface an annular recess (14) matching and receiving the corresponding first lip (Fig. 16 or 18), wherein each second abutment surface rests against the corresponding third abutment surface and/or in that each first abutment surface rests against the corresponding fourth abutment surface (Fig. 16 and/or 18),

wherein the assembly is configured to develop, after diametral expansion in the plastic deformation region, sealing interference contacts sealing the assembly (Fig. 17 or 19), and the first and second tubular elements will be sealed with respect to a pressure difference between the inside and outside of the first and second tubular elements (paragraph 8, "a high performance sealed tubular joint").

However, Verger does not disclose said second tubular elements form two opposing ends of a female/female connection sleeve, separated by a central portion initially provided, over an outer surface, with an annular zone having an initial reduced thickness selected such that the section of the sleeve in the region of this zone is greater than or equal to the critical section of the threaded part of the joint.

Nevertheless, Matsuki '351 is evidence that it is old and well-known in the art to per se to use second tubular elements to form two opposing ends of a female/female connection sleeve, separated by a central portion initially provided, over an outer surface, with an annular zone having an initial reduced thickness selected such that the section of the sleeve in the region of this zone is greater than or equal to the critical section of the threaded part of the joint (Fig. 1, where the thickness of the central portion of the sleeve 7 appears to be about



equal to the critical section of the threaded part of the joint) as a conventional feature for connecting threaded tubes.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the second tubular elements or Verger in the conventional form of two opposing ends of a female/female connection sleeve separated by a central portion (which is generally disclosed by Verger in paragraph 2, as discussed above) , such as that exemplified by Metcalfe '947, for the purpose of realizing a predictable result of connecting two tubes each having male threads.

6. Regarding claim 6, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, further discloses said second tubular element comprises, at a selected location of its third inner surface, an inner annular groove (Verger, 44) arranged substantially in the region of said first outer surface (Verger, Fig. 16).

7. Regarding claim 7, the combined teachings of Verger and Matsuki '351, as applied to claim 6 above, further discloses said groove initially comprises at least two curvilinear portions (Verger, Fig. 16).

8. Regarding claim 8, the combined teachings of Verger and Matsuki '351, as applied to claim 7 above, further discloses said curvilinear portions initially have substantially identical radii of curvature (Verger, paragraph 199, "ring shaped

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ribbing 44 presenting a concave profile markedly in the form of an arc of a circle with a radius of about 10 mm”).

9. Regarding claim 9, the combined teachings of Verger and Matsuki '351, as applied to claim 8 above, further discloses said radius of curvature is initially between approximately 2 mm and approximately 20 mm (Verger, paragraph 199, “ring shaped ribbing 44 presenting a concave profile markedly in the form of an arc of a circle with a radius of about 10 mm”).

10. Regarding claim 10, the combined teachings of Verger and Matsuki '351, as applied to claim 7 above, do not explicitly disclose the two curvilinear portions are separated by a substantially cylindrical central portion extending parallel to a longitudinal axis of the assembly.

Nevertheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to change the shape of the inner annular groove. MPEP 2144.04. Please note that in the instant application, page 10, lines 2-3, “groove G1 may comprise only two curvilinear portions,” applicant has disclosed that the claimed limitation is an optional (i.e., clearly non-critical) feature of the invention.

11. Regarding claim 11, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, further discloses said groove initially has a radial depth (Verger, paragraph 210, “the ribbing 44 can have ... a depth in the order of

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a few tenths of a mm.”), the maximum value of which is selected such that the material section at the bottom of the groove is greater than the product of the smallest section of a common portion of said tubes, and the efficiency of the joint under tension (Verger, Fig. 17).

12. Regarding claim 15, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, further discloses said male and female threads selected from a group consisting of conical and cylindrical threads and each formed over at least one tubular element portion (Verger, paragraph 104, “male threaded element 3, conical with trapezoidal threads” and paragraph 116, “female threading 4 with trapezoidal threads matching the male threading 3”).

13. Regarding claim 16, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, further discloses said first outer surface and third inner surface are shaped in such a way that, after expansion, a sealing interference contact is defined between a portion of each of them (Verger, Fig. 17).

14. Regarding claim 17, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, further discloses said first and second expandable tubular elements are shaped in such a way that, after said expansion, a sealing interference contact is defined between an inner end portion of said first lip and said second outer surface (Verger, Fig. 17).

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15. Regarding claim 22, the combined teachings of Verger and Matsuki '351, as applied to claim 6 above, further discloses the assembly is configured to develop, after expansion in the plastic deformation region, sealing interference contact of the first annular lip with a portion of the groove (Verger, Fig. 17).

16. Regarding claim 23, the combined teachings of Verger and Matsuki '351, as applied to claim 22 above, further discloses the first annular lip takes on a shape of the portion of the groove after the expansion in the plastic deformation region (Verger, Fig. 17, and paragraph 201, "During expansion of the joint, the concave shape of the ribbing 44 impresses a corresponding convex shape on the peripheral surface 7 of the lip").

17. Claims 2-5, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Verger and Matsuki '351 as applied to claim 1 above, and further in view of PCT Application Publication WO 98/42947, Metcalfe (Metcalfe '947).

18. Regarding claim 2, the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, do not disclose said zone of reduced thickness in the form of a dish provided with a central portion having said maximum reduced thickness and lateral walls.

Nevertheless, Metcalfe '947 is evidence that it is old and well-known in the art per se to use a zone of reduced thickness in the form of a dish provided with a central portion having said maximum reduced thickness and lateral walls (Fig. 2) as a conventional feature for controlling the expansion of an expanded tube connection ("the connector 16 and the tubing lengths 24, 25 will expand in corresponding and predictable [i.e., controlled] manner," Metcalfe '947, page 10, lines 8-11).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the sleeve of Verger and Matsuki '351 with a reduced thickness in the form of a dish provided with a central portion having said maximum reduced thickness and lateral walls, such as that exemplified by Metcalfe '947 for the purpose of realizing a predictable result of "minimising the occurrence of irregularities in the internal diameter of the expanded tubing string." Metcalfe '947, page 10, lines 8-11.

However, the combined teachings of Verger, Matsuki '351, and Metcalfe '947 do not explicitly disclose the lateral walls inclined at an angle of less than approximately 30°.

Nevertheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a transition from the intermediate portion to the end portions at a low angle of inclination, since it has

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been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Please note that in the instant application, page 4, lines 3-4, applicant has not disclosed any criticality for the claimed limitations. Please further note that the recitation in claim 2 of a range with an approximate limit is broad enough to encompass values outside of the apparent bounds of the range, i.e., "an angle of less than approximately 30°" can include angles greater than 30°, and it is not clear how far above 30° the range "less than approximately 30°" can extend.

Moreover, the variation of the angle of inclination of the lateral walls amounts to nothing more than a change of the shape of the sleeve. Changing the shape of the sleeve of Metcalfe '947 would have been obvious to one of ordinary skill in the art. MPEP 2144.04.

19. Regarding claim 3, the combined teachings of Verger, Matsuki '351, and Metcalfe '947, as applied to claim 2 above, do not explicitly disclose said angle is equal to approximately 15°.

Nevertheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a transition from the intermediate portion to the end portions at a low angle of inclination, since it has been held that where the general conditions of a claim are disclosed in the prior

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art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Please note that in the instant application, page 4, lines 3-4, applicant has not disclosed any criticality for the claimed limitations.

Moreover, the variation of the angle of inclination of the lateral walls amounts to nothing more than a change of the shape of the sleeve. Changing the shape of the sleeve of Metcalfe '947 would have been obvious to one of ordinary skill in the art. MPEP 2144.04.

20. Regarding claims 4 and 20, the combined teachings of Verger, Matsuki '351, and Metcalfe '947, as applied to claims 2 and 3 above, further discloses a dish extending substantially in a zone between last threads of the two female threads, (Metcalfe '947, as shown in Figure 2).

Where it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the assembly of Verger with the zone of reduced thickness of Metcalfe '947, it would further have been obvious for the same reasons to provide the zone in the form and location disclosed by Metcalfe '947.

21. Regarding claim 5, the combined teachings of Verger, Matsuki '351, and Metcalfe '947, as applied to claim 4 above, further discloses a dish extending

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substantially between said third abutment surfaces of the two second tubular elements, (Metcalf '947, as shown in Figure 2).

Where it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the assembly of Verger with the zone of reduced thickness of Metcalf '947, it would further have been obvious for the same reasons to provide the zone in the form and location disclosed by Metcalf '947.

22. Regarding claim 20, the combined teachings of Verger, Matsuki '351, and Metcalf '947, as applied to claim 3 above, fully disclose the claimed invention, as discussed above regarding claim 4.

23. Regarding claim 21, the combined teachings of Verger, Matsuki '351, and Metcalf '947, as applied to claim 2 above, fully disclose the claimed invention, as discussed above regarding claim 6.

24. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Verger and Matsuki '351, as applied to claim 1 above, and further in view of U.S. Patent 5,462,315, Klementich, hereafter, "Klementich '315."

The combined teachings of Verger and Matsuki '351, as applied to claim 1 above, do not disclose threads provided with a carrier flank having a negative



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angle of between approximately  $-3^{\circ}$  and approximately  $-15^{\circ}$  (claim 12) and a stabbing flank having a positive angle of between approximately  $+10^{\circ}$  and approximately  $+30^{\circ}$  (claim 13).

Nevertheless, it is old and well known per se in the relevant art to use a carrier flank having a negative angle of between approximately  $-3^{\circ}$  and approximately  $-15^{\circ}$  and a stabbing flank having a positive angle of between approximately  $+10^{\circ}$  and approximately  $+30^{\circ}$ , as evidenced by Klementich '315 (see Figs. 6A-6D, illustrating that it is known in the art to select the claimed flank angles from among a finite set of known alternatives).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the threads of the combined teachings of Verger and Matsuki '351 with flank angles such as those exemplified by Klementich '315, as an obvious design choice from among a finite set of known, predictable, alternatives with a reasonable expectation of success.

### ***Response to Arguments***

25. Applicant's arguments filed 6/9/10 have been fully considered but they are not persuasive.

26. Applicant argues "Verger does not disclose a female/female sleeve as recited in Claim 1. ... Further, Verger is silent regarding the initial reduced

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thickness.” Applicant’s further arguments regarding the combination are noted and will be further discussed hereinbelow. As to the statements quoted in this paragraph, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, where Matsuki ‘351 discloses the female/female sleeve with an initial reduced thickness, and the rejection was based on the combination, the fact that Verger lacks these aspects is not by itself sufficient to overcome the rejection.

27. Applicant further argues “Verger is silent regarding the initial reduced thickness and its determination with regard to the product of the section of a common portion of said tubes and the efficiency of the joint” (page 10) and “Metcalf is silent about the efficiency of the joint, therefore Metcalfe is silent about the product of the section of a common portion of the tubes and the efficiency of the joint” (page 11). These statements appear correct, however, Matsuki ‘351 does disclose a portion with an initial reduced thickness that is structurally similar to that of the instant invention as defined by claim 1, as discussed above. Therefore, because the patentability of a product does not depend on its method of production, the manner in which the thickness of the reduced portion is determined need not be specifically disclosed so long as the

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resultant structure is known in the art. See MPEP 2113, “The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. ... The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art.”

28. Applicant further argues on pages 10-11 that Verger and Metcalfe are not properly combinable because Metcalfe is non-analogous art, e.g., “The problems addressed by the assembly recited in Claim 1 and discussed in the specification are not suggested in Metcalfe, and Metcalfe and Verger diverge from each other on this point. Metcalfe endeavors to solve a different problem, i.e., obtaining the same expansion behavior for the various critical zones of the sleeve and of the tubes.” (page 11). It has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Metcalfe is in the field of applicant’s endeavor because the application relates to “an assembly including two symmetrically-disposed expandable threaded tubular joints” (abstract) for

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use in “the field of tubular joints such as, for example, those used in hydrocarbon wells or similar wells, such as geothermal wells” (application, page 1, lines 5-6) and Metcalfe relates to “a connector forming part of an expandable tubing assembly” (page 1, lines 2-3) that can also be used in hydrocarbon or geothermal wells. Moreover, Metcalfe is reasonably pertinent to the particular problem with which the applicant was concerned in that the applicant was concerned with “claimed features [that] produce a decrease of the expansion pressure and efforts, [and] produce a control of the deformation of the abutment surfaces” (reply dated 9/9/10, page 10) while Metcalfe similarly concerns controlled deformation of expandable tubulars, “Preferably also, the connector further comprises an intermediate portion selected to be of corresponding configuration to the tubing lengths [i.e., the portion that corresponds to applicant’s “annular zone having an initial reduced thickness”], such that the expansion characteristics of the connected tubing assembly will be substantially constant over the connection” (Metcalfe, page 3, lines 6-10, see also page 10, lines 8-11, as discussed above, regarding “predictable,” i.e., controlled expansion). Metcalfe is also reasonably pertinent to decreasing the expansion pressure and efforts, because one of ordinary skill in the art would plainly recognize that the reduced thickness portion of Metcalfe will require less pressure and effort to expand than would a comparatively thicker female element, such as that of Verger. Further,

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one of ordinary skill in the art would recognize that the zone of initial reduced thickness in Metcalfe would be advantageous to the expandable tubing connection of Verger because it “facilitates reliable expansion of an expandable tubing string.” (Metcalfe, pages 3, line 28 to page 4, line 1).

29. Applicant further argues on pages 10-11 that Verger and Metcalfe are not properly combinable because Metcalfe teaches away from the claimed invention, e.g., Metcalfe's teachings are “specific to the slotted tube assembly, and [] would not have been transferred to a tight tube assembly by a person of ordinary skill in the art” (page 11). This is not persuasive because “in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.” *In re: Gurley*, 31 USPQ2d 1130, at 1131. In this case, the line of development flowing from Metcalfe's disclosure is likely to be productive of the result sought by the applicant because Metcalfe discloses deformable tubing connections that “will expand in [a] predictable [i.e., controlled] manner” (page 10, lines 8-11) while the result applicant sought was to “produce a control of the deformation of the abutment surfaces and sealing surfaces of the assembly,” (reply dated 9/9/10, page 10). Additionally, the line of development flowing from Metcalfe's disclosure is likely to be productive of the result sought by the applicant because the result applicant sought was to “produce a decrease of the

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expansion pressure and efforts,” (reply dated 9/9/10, page 10), while one of ordinary skill in the art would plainly recognize that the reduced thickness portion of Metcalfe will require less pressure and effort to expand than would a comparatively thicker female element, such as that of Verger.

30. Applicant further argues “there is no apparent reason that would have led a person of ordinary skill in the art to incorporate features of Metcalfe in an assembly according to Verger with the aim of improving the performances of the sealing means of Verger” (page 12). This is not persuasive because one of ordinary skill in the art would recognize that the zone of initial reduced thickness in Metcalfe would be advantageous to the expandable tubing connection of Verger for the reasons discussed above, e.g., because it “facilitates reliable expansion of an expandable tubing string.” (Metcalfe, pages 3, line 28 to page 4, line 1).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Williams whose telephone number is (571)270-1155. The examiner can normally be reached on Mon-Thurs 9:30-7:00, Fri 9:30-2:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. W./  
Examiner, Art Unit 3679  
11/22/2010

/Daniel P. Stodola/  
Supervisory Patent Examiner, Art Unit 3679